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EXAMINER	
BROOME, SAID A	

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Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No. 10/647,250	Applicant(s) UEDA ET AL.	
	Examiner Said Broome	Art Unit 2628	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on 02 July 2007.

2a)☒ This action is **FINAL**. 2b)☐ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) 1 and 3-16 is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) 1 and 3-16 is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☒ All b)☐ Some * c)☐ None of:

1.☒ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☐ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO/SB/08) Paper No(s)/Mail Date _____.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____.
5) ☐ Notice of Informal Patent Application
6) ☐ Other: _____.

DETAILED ACTION

Response to Amendment

1. This office action is in response to an amendment filed 7/2/2007.

2. Claims 1, 11, 14, 15 and 16 have been amended by the applicant.

3. Claim 2 has been cancelled.

4. Claims 3-10, 12 and 13 are original.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

Claims 1 and 3-16 are rejected under 35 U.S.C. 103(a) as being unpatentable over Marusich (US 2002/0198693).

Regarding claim 1, Marusich teaches a method of generating mesh data which represent a characteristic value, such as a material property of the mesh, is associated to combined cube elements (paragraph 0005 lines 1-7) and are used in a computer analysis related to a target object (paragraph 0035 lines 4-10 - 0036 lines 1-3). Marusich teaches subdividing a mesh into several geometric elements (paragraph 0035 lines 4-5), in which the mesh may be comprised with cube elements commonly known in the art (paragraph 0005 lines 1-7: "*...the elements used to divide the component...of the model...In three dimensions...cubes are often used.*"), therefore it would have been obvious to one of ordinary skill in the art at the time of invention to enable the mesh

subdivision process (Figure 3: step 2), to include rectangles or cubes, thereby accurately forming grid lines orthogonally crossing each other over a target object. Marusich also teaches forming cube data from mesh data obtained by dividing a target object by grid lines (paragraph 0005 lines 1-7, Figure 3: step 2). Marusich teaches it is commonly known in the art to subdivide a mesh surface into cube elements (paragraph 0005 lines 1-7), therefore it would have been obvious to one of ordinary skill in the art at the time of invention to represent the mesh surface with cube data formed of cube elements which are mesh elements forming the shape of a target object (paragraph 0005 lines 1-7). Marusich teaches mesh data, or cube data, is obtained by determining whether each of mesh elements forming the mesh data forms the target object based on a first condition of the target object in the mesh element (paragraph 0039 lines 8-19: "*...elements can be refined, or re-meshed with additional, smaller elements to provide more detail, or to provide new elements with a non-deformed aspect ratio.*"), where mesh elements are determined to form the shape of an object after subdivision based on a first condition, such as determining a desired shape for the mesh (second step of the second column of the flow chart shown in Figure 4). Marusich also teaches generating combined cube elements by combining the cube elements (paragraph 0039 lines 8-19: "*...elements can be refined, or re-meshed...selected elements or regions of elements can be re-meshed or coarsened with fewer, larger elements to provide less detail and to reduce the computations needed in areas of less interest...Adaptive meshing further includes adding or removing elements in contrast to refining or coarsening the mesh.*" and paragraph 0005 lines 1-7: "*...the elements used to divide the component...of the model...In three dimensions...cubes are often used.*"), in accordance with a second condition, such as preventing change of the shape by repeatedly correcting an aspect ratio based on determination of an

undesired shape, where a number of the combined cube elements is smaller than a number of cube elements (paragraph 0039 lines 8-19: "*...elements can be refined...with fewer, larger elements...*"), and storing the combined elements (paragraph 0038 lines 4-6), which may be cube elements (paragraph 0005 lines 1-7) to be used in the computer analysis related to the target object (paragraph 0038 lines 4-6: "*The resulting deformation data is then utilized...sent to a user readable media...*", Figure 4: step 112). Marusich teaches that it would have been obvious to one of ordinary skill in the art to enable the subdivided mesh elements (Figure 3: step 2) to be cube elements (paragraph 0005 lines 1-7), in which the combined cube elements are therefore generated by combining neighboring elements (paragraph 0039 lines 4-15: "*...when the elements or a selected number of elements are deformed to an undesirable aspect ratio...selected elements or regions of elements can be re-meshed or coarsened with fewer, larger elements to provide less detail and to reduce the computations needed in areas of less interest.*") into cube elements with orthogonal planes (paragraph 0005 lines 1-7), and a corrective action may be taken if necessary according to the second condition (third column of the flowchart shown in Figure 4), where the mesh surface is corrected based on determination of an undesired shape.

Regarding claim 3, Marusich teaches the first condition of the target object in the mesh element is a ratio of volume of the target object in the mesh element to volume of the mesh element (paragraph 0039 lines 25-28: "*...smaller elements to provide more detail, or to provide new elements with a non-deformed aspect ratio. Alternatively, selected elements or regions of elements can be re-meshed or coarsened with fewer, larger elements to provide less detail and to reduce the computations needed in areas of less interest...An adaptive meshing change in*

orientation of a shared surface does not affect overall volume or the number of elements in the mesh. It allows a number of adjacent elements to improve their aspect ratio.").

Regarding claim 4, Marusich teaches a second condition of preventing the change of the shape of the target object formed of the cube data (paragraph 0039 lines 25-27: "*An adaptive meshing change in orientation of a shared surface does not affect overall volume or the number of elements in the mesh.*", third column of Figure 4).

Regarding claim 5, Marusich teaches a second condition of preserving the substantial shape of the target object formed of the cube data (paragraph 0039 lines 25-27: "*An adaptive meshing change in orientation of a shared surface does not affect overall volume or the number of elements in the mesh.*").

Regarding claim 6, Marusich teaches a second condition of preventing the substantial volume of the cube elements (paragraph 0039 lines 25-27: "*An adaptive meshing change in orientation of a shared surface does not affect overall volume or the number of elements in the mesh.*").

Regarding claim 7, Marusich teaches a second condition of combining the cube elements preserves the substantial volume of the cube elements (paragraph 0039 lines 25-28: "*...selected elements or regions of elements can be re-meshed or coarsened with fewer, larger elements to provide less detail and to reduce the computations needed in areas of less interest...An adaptive meshing change in orientation of a shared surface does not affect overall volume or the number of elements in the mesh. It allows a number of adjacent elements to improve their aspect ratio.*").

Regarding claim 8, Marusich teaches a second condition of maintaining the aspect ratio of each of the surfaces of each of the composite cube elements (paragraph 0039 lines 25-28:

"*...selected elements or regions of elements can be re-meshed or coarsened with fewer, larger elements to provide less detail and to reduce the computations needed in areas of less interest...*"), is within a predetermined range, in which the total volume of the object is preserved (paragraph 0039 lines 25-28: "*...An adaptive meshing change in orientation of a shared surface does not affect overall volume or the number of elements in the mesh. It allows a number of adjacent elements to improve their aspect ratio.*").

Regarding claim 9, Marusich teaches that each of the composite elements that divide the surface has a rectangular parallelepiped shape (paragraph 0005 lines 1-7: "*The configuration of the elements used to divide the component or workpiece determines many of the properties and accuracy of the model...In three dimensions...cubes are often used.*"). Marusich also describes that the aspect ratio of each of the surfaces of each of the composite cube elements is a ratio of a length of a first side to a length of a second side of the surfaces, the first and second surface sides being orthogonal to each other (paragraph 0010 lines 6-9: "*Selected elements or regions of elements can be refined, or re-meshed with additional, smaller elements to provide more detail, or to provide new elements with a non-deformed aspect ratio.*"), where the aspect ratio, which is known in the art to be the ratio between horizontal and vertical sides of the mesh elements, is therefore determined for the orthogonal sides of the elements of the surface.

Regarding claim 10, Marusich teaches that the grid lines portioning the cube elements are reduced in number as the cube elements are combined to be reduced in number (paragraph 0039 lines 25-28: "*...selected elements or regions of elements can be re-meshed or coarsened with fewer, larger elements to provide less detail and to reduce the computations needed in areas of*

less interest..."), where the mesh elements are formed into fewer, larger elements and the lines formed by rectangular mesh elements are therefore reduced as well.

Regarding claims 11-13, Marusich teaches a computer readable medium for storing a program and an apparatus for executing the program (paragraph 0042 lines 3-6 and paragraph 0044 lines 1-5), to execute a method of generating mesh data (paragraph 0014 line 7), which represents a characteristic value, such as material properties of the mesh associated with combined cube elements and are used in a computer analysis related to a target object (paragraph 0035 lines 4-10 - 0036 lines 1-3: "*A mesh is generated within the body to subdivide the body into a number of elements. The desired deformation...is entered, typically by a user. A number of element behavior properties are defined for the elements...element behavior properties include material properties...*"). Marusich teaches subdividing a mesh into several geometric elements (paragraph 0035 lines 4-5), in which the mesh may be comprised with cube elements (paragraph 0005 lines 1-7: "*...the elements used to divide the component...of the model...In three dimensions...cubes are often used.*"), therefore it would have been obvious to one of ordinary skill in the art at the time of invention to enable the mesh subdivision process (Figure 3: step 2), to include rectangles or cubes commonly known in the art, thereby forming grid lines orthogonally crossing each other over target object. Marusich teaches forming cube data from mesh data obtained by dividing the target object by the grid lines, the cube data being formed of cube elements that are mesh elements forming the target object wherein the cube data is obtained by determining whether each of mesh elements forming the mesh data forms the target object (paragraph 0005 lines 1-7, Figure 3: step 2). Marusich teaches generating combined cube elements (paragraph 0005 lines 1-7, paragraph 0039 lines 8-19), in accordance with a

predetermined condition of preventing a change of a shape of the target object formed of the cube data (paragraph 0039 lines 25-27: "*An adaptive meshing change in orientation of a shared surface does not affect overall volume or the number of elements in the mesh.*" and paragraph 0050 lines 8-11: "*The modeling element includes a good aspect ratio in the parent element and sub-elements to improve accuracy and computational efficiency.*"). Marusich also teaches the remaining conditions (third column of the flowchart in Figure 4), where the shape and aspect ratio of the object is preserved by adaptively dividing the mesh until a desired aspect ratio is obtained. Marusich teaches storing the combined elements (paragraph 0038 lines 4-6), which may be cube elements (paragraph 0005 lines 1-7), to be used in the computer analysis related to the target object (paragraph 0038 lines 4-6, Figure 4: step 112). Marusich teaches combined cube elements are generated by combining neighboring elements in orthogonal planes (paragraph 0005 lines 1-7), where the divided mesh surfaces comprises cubes, which therefore form orthogonal planes on the surface. Marusich teaches that a corrective action may be taken if necessary according to the predetermined condition (second and third column in the flowchart of Figure 4), where it is shown that based on determination of an undesired shape, the mesh surface is repeatedly corrected.

Regarding claim 14, Marusich teaches a method of generating mesh data which represent a characteristic value, such as a material property of the mesh, is associated to combined cube elements (paragraph 0005 lines 1-7) and are used in a computer analysis related to a target object (paragraph 0035 lines 4-10 - 0036 lines 1-3: "*A mesh is generated within the body to subdivide the body into a number of elements. The desired deformation...is entered, typically by a user. A number of element behavior properties are defined for the elements...element behavior*

properties include material properties..."). Marusich teaches subdividing a mesh into several geometric elements (paragraph 0035 lines 4-5), in which the mesh may be comprised with cube elements commonly known in the art (paragraph 0005 lines 1-7: "*...the elements used to divide the component...of the model...In three dimensions...cubes are often used.*"), therefore it would have been obvious to one of ordinary skill in the art at the time of invention to enable the target object (paragraph 0039 lines 4-15, Figure 3: step 2) to be divided into a plurality of rectangles or cubes commonly known in the art, thereby enabling the mesh surface to contain orthogonal lines that form a grid over the surface. Marusich teaches combining the plurality of first elements according to a predetermined condition, in which the shape of the object is preserved (paragraph 0039 lines 25-27: "*An adaptive meshing change in orientation of a shared surface does not affect overall volume or the number of elements in the mesh.*"), to generate a plurality of second elements, storing the second elements (paragraph 0038 lines 4-6), which may be cube elements (paragraph 0005 lines 1-7), to be used in the computer analysis related to the target object (paragraph 0038 lines 4-6, Figure 4: step 112), each second element corresponding to second data, wherein a number of second elements is smaller that a number of the first elements (paragraph 0039 lines 8-19: "*...elements can be refined, or re-meshed with additional, smaller elements to provide more detail, or to provide new elements with a non-deformed aspect ratio. Alternatively, selected elements or regions of elements can be re-meshed or coarsened with fewer, larger elements to provide less detail and to reduce the computations needed in areas of less interest*"). Marusich also teaches that it would have been obvious to one of ordinary skill in the art to enable the subdivided mesh elements (Figure 3: step 2) to be cube elements (paragraph 0005 lines 1-7), in which the combined cube elements are therefore generated by combining

neighboring elements (paragraph 0039 lines 4-15: "*...when the elements or a selected number of elements are deformed to an undesirable aspect ratio...selected elements or regions of elements can be re-meshed or coarsened with fewer, larger elements to provide less detail and to reduce the computations needed in areas of less interest.*") into cube elements with orthogonal planes (paragraph 0005 lines 1-7), and a corrective action may be taken if (third column of the flowchart shown in Figure 4), where the mesh surface is corrected based on determination of an undesired shape.

Regarding claim 15, Marusich teaches a method of analyzing material and pressure properties of a mesh model (paragraph 0036 lines 1-6), therefore this mesh data analysis could be applied to any structural or pressure analysis, such as thermal analysis, as disclosed in the applicant's Specification on page 6 lines 31-36 and page 7 lines 13-15. Marusich teaches subdividing a mesh into several geometric elements (paragraph 0035 lines 4-5), in which the mesh may be comprised with cube elements commonly known in the art (paragraph 0005 lines 1-7: "*...the elements used to divide the component...of the model...In three dimensions...cubes are often used.*"), therefore it would have been obvious to one of ordinary skill in the art at the time of invention to enable the mesh subdivision process (Figure 3: step 2), to include rectangles or cubes, thereby accurately forming grid lines orthogonally crossing each other over a target object. Marusich also teaches forming cube data from mesh data obtained by dividing a target object by grid lines (paragraph 0005 lines 1-7, Figure 3: step 2). Marusich teaches that it is commonly known in the art to subdivide a mesh surface into cube elements (paragraph 0005 lines 1-7), therefore it would have been obvious to one of ordinary skill in the art at the time of invention to represent the mesh surface with cube data formed of cube elements which are mesh

elements forming the shape of a target object (paragraph 0005 lines 1-7). Marusich also teaches generating combined cube elements by combining the cube elements in accordance with a predetermined condition, such as preventing change of the shape by repeatedly correcting an aspect ratio based on determination of an undesired shape (paragraph 0039 lines 8-19: "*...elements can be refined, or re-meshed...selected elements or regions of elements can be re-meshed or coarsened with fewer, larger elements to provide less detail and to reduce the computations needed in areas of less interest...Adaptive meshing further includes adding or removing elements in contrast to refining or coarsening the mesh.*" and paragraph 0005 lines 1-7: "*...the elements used to divide the component...of the model...In three dimensions...cubes are often used.*"). Marusich teaches storing the elements (paragraph 0038 lines 4-6), which may be cube elements (paragraph 0005 lines 1-7), to be used in the computer analysis related to the target object (paragraph 0038 lines 4-6, Figure 4: step 112). Marusich teaches that it would have been obvious to one of ordinary skill in the art to enable the subdivided mesh elements (Figure 3: step 2) to be cube elements (paragraph 0005 lines 1-7), in which the combined cube elements are therefore generated by combining neighboring elements (paragraph 0039 lines 4-15: "*...when the elements or a selected number of elements are deformed to an undesirable aspect ratio...selected elements or regions of elements can be re-meshed or coarsened with fewer, larger elements to provide less detail and to reduce the computations needed in areas of less interest.*") into cube elements with orthogonal planes (paragraph 0005 lines 1-7), and a corrective action may be taken if necessary (third column of the flowchart shown in Figure 4), where the mesh surface is corrected based on determination of an undesired shape.

Regarding claim 16, Marusich teaches a method to generate mesh data (paragraph 0014 line 7), and receiving data representing a target object (paragraph 0035 lines 2-4, first step of Figure 4). . Marusich teaches subdividing a mesh into several geometric elements (paragraph 0035 lines 4-5), in which the mesh may be comprised with cube elements commonly known in the art (paragraph 0005 lines 1-7: "*...the elements used to divide the component...of the model...In three dimensions...cubes are often used.*"), therefore it would have been obvious to one of ordinary skill in the art at the time of invention to enable the mesh subdivision process (Figure 3: step 2), to include rectangles or cubes, thereby accurately forming grid lines orthogonally crossing each other over a target object. Marusich teaches determining whether each of the mesh elements is a cube element forming the target object based on a ratio of a volume of the target object in the mesh element and a volume of the mesh element (paragraph 0005 lines 1-7 and in paragraph 0050 lines 8-11), where as the mesh surface is divided into cubes containing orthogonal lines, the overall aspect ratio of the object is preserved, therefore the cube elements formed from the division are based on the ratio of the volume (Figure 4). Marusich teaches forming cube data from one or more of the mesh elements determined as the cube elements (paragraph 0005 lines 1-7). Marusich teaches determining a combination of two or more of the cube elements, the two or more of the cube elements being combinable in any of a plurality of orthogonal planes (paragraph 0005 lines 1-7 and in paragraph 0039 lines 8-19), where elements are combined into fewer larger elements, therefore at least two cube elements of the mesh are combined. Marusich also teaches reducing a number of the cube elements by combining the two or more of the cube elements of the determined combination (paragraph 0039 lines 8-19: "*...selected elements or regions of elements can be re-meshed or coarsened with*

fewer, larger elements..."), and storing the resulting reduced set of elements (paragraph 0038 lines 4-6), which may be cube elements known in the art (paragraph 0005 lines 1-7).

Response to Arguments

Applicant's arguments filed 7/2/07 have been fully considered but they are not persuasive.

The 35 U.S.C. 101 rejection of claims 1, 3-12 and 14-16 has been withdrawn.

The applicant argues that the reference Marusich used in the 35 U.S.C. 103(a) rejection of claim 1 does not teach combined cube elements are generated by combining neighboring elements in orthogonal planes, and a corrective action may be taken if necessary. However, Marusich teaches subdividing a mesh into several geometric elements (paragraph 0035 lines 4-5), in which the mesh may be comprised with cube elements commonly known in the art (paragraph 0005 lines 1-7: "*...the elements used to divide the component...of the model...In three dimensions...cubes are often used.*"), therefore it would have been obvious to one of ordinary skill in the art at the time of invention to enable the subdivided mesh surface (paragraph 0039 lines 4-15, Figure 3: step 2) to include rectangles or cubes commonly known in the art, thereby combining neighboring elements in orthogonal planes to accurately represent the mesh surface. Marusich also teaches a corrective action may be taken if necessary (third column of the flowchart shown in Figure 4), where the mesh surface is continually corrected until an acceptable aspect ratio is obtained.

The applicant argues that the reference Marusich used in the 35 U.S.C. 103(a) rejection of claim 1 does not teach a first and second condition. However, Marusich teaches a first

condition (second step of the second column of the flow chart shown in Figure 4) of determining a desired shape for the mesh, and a second condition (first step of the third column of the flowchart shown in Figure 4) of taking corrective action if an underside shape is determined.

The applicant argues that the reference Marusich used in the 35 U.S.C. 103(a) rejection of claim 1 does not teach the cube data being formed of cube elements that are mesh elements forming the target object wherein the cube data is obtained by determining whether each of mesh elements forming the mesh data forms the target object based on a first condition of the target object in the mesh element. However, Marusich teaches tessellating a mesh surface into several mesh elements (paragraph 0035 lines 4-5), in which it is commonly known in the art to subdivide a mesh surface into cube elements (paragraph 0005 lines 1-7), therefore it would have been obvious to one of ordinary skill in the art at the time of invention to represent the mesh surface with cube data formed of cube elements which are mesh elements forming the shape of a target object (paragraph 0005 lines 1-7). Marusich also teaches the mesh data, or cube data, is obtained by determining whether each of mesh elements forming the mesh data forms the target object based on a first condition of the target object in the mesh element (paragraph 0039 lines 8-19: "*...elements can be refined, or re-meshed with additional, smaller elements to provide more detail, or to provide new elements with a non-deformed aspect ratio.*"), where mesh elements are analyzed to determine whether the subdivided mesh forms a desired shape based on a first condition, such as determining a desired shape for the mesh (second step of the second column of the flow chart shown in Figure 4).

The applicant argues that the reference Marusich used in the 35 U.S.C. 103(a) rejection of claim 1 does not teach that the combined cube elements are generated by combining

neighboring elements in orthogonal planes, and a corrective action may be taken if necessary according to the second condition. However, Marusich teaches subdividing a mesh surface into cube elements well known in the art (paragraph 0005 lines 1-7), therefore it would have been obvious to one of ordinary skill in the art at the time of invention to enable the subdivided mesh elements (Figure 3: step 2) to be cube elements, in which the combined cube elements are therefore generated by combining neighboring elements (paragraph 0039 lines 4-15: "*...when the elements or a selected number of elements are deformed to an undesirable aspect ratio...selected elements or regions of elements can be re-meshed or coarsened with fewer, larger elements to provide less detail and to reduce the computations needed in areas of less interest.*") into cube elements with orthogonal planes (paragraph 0005 lines 1-7), and a corrective action may be taken if necessary according to the second condition (third column of the flowchart shown in Figure 4), where the mesh surface is corrected based on determination of an undesired shape.

Conclusion

THIS ACTION IS MADE FINAL. Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37

CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Said Broome whose telephone number is (571)272-2931. The examiner can normally be reached on M-F 8:30am-5pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Ulka Chauhan can be reached on (571)272-7782. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/Said Broome/
Art Unit 2628
9/11/07

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SUPERVISORY PATENT EXAMINER